

## WHAT IS CLAIMED IS:

1           1. A method for quantifying risk of fraud associated with a  
2 purchasing card transaction, the method comprising:

3                 obtaining a charge-back history associated with a consumer involved  
4 in the purchasing card transaction; and

5                 determining a risk score based on the charge-back history.

1           2. The method of claim 1 wherein the step of obtaining a charge-  
2 back history includes obtaining a reason code for each charge-back included in the  
3 charge-back history.

1           3. The method of claim 2 further comprising weighting each  
2 charge-back included in the charge-back history based on the corresponding reason  
3 code.

1           4. The method of claim 1 further comprising determining how  
2 each charge-back included in the charge-back history is associated with the  
3 purchasing card transaction, and weighting each charge-back based on the  
4 corresponding association with the purchasing card transaction.

1           5. The method of claim 1 further comprising obtaining additional  
2 charge-back history associated with a machine identification number of a machine  
3 involved in the purchasing card transaction, and wherein the step of determining a  
4 risk score includes determining the risk score based on the additional charge-back  
5 history.

1           6. The method of claim 1 wherein the step of determining a risk  
2 score includes comparing the charge-back history to predetermined ranges of  
3 charge-backs.

1           7. The method of claim 1 wherein the step of determining a risk  
score is performed using a linear risk model.

1               8.     The method of claim 1 wherein the step of determining a risk  
2     score is performed using a regression risk model.

1               9.     The method of claim 1 wherein the step of determining a risk  
2     score is performed using a decision tree risk model.

1               10.    The method of claim 1 wherein the step of determining a risk  
2     score is performed using a neural network risk model.

1               11.    The method of claim 1 wherein the step of determining a risk  
2     score includes determining the risk score based on a plurality of purchasing card  
3     transaction characteristics.

1               12.    A method for quantifying risk of fraud associated with a  
2     purchasing card transaction, the method comprising:

3               obtaining a charge-back history associated with a consumer involved  
4     in the purchasing card transaction, wherein the charge-back history includes charge-  
5     backs associated with a particular purchasing card account of the consumer, and a  
6     reason code for each charge-back;

7               weighting each charge-back based on the corresponding reason code;  
8     and

9               determining a risk score based on the weighted charge-backs.

1               13.    A system for quantifying risk of fraud associated with a  
2     purchasing card transaction, the system comprising:

3               an authorization source for obtaining a charge-back history associated with  
4     a consumer involved in the purchasing card transaction, the authorization source  
5     including a risk model for determining a risk score based on the charge-back  
history.

1               14.    The system of claim 13 wherein the authorization source  
2     includes a database for storing a reason code for each charge-back included in the  
3     charge-back history, and a processor in communication with the database and

4 including the risk model, wherein the risk model includes instructions for  
5 determining the risk score based on the reason codes.

1               15. The system of claim 14 wherein the risk model includes  
2 instructions for weighting each charge-back included in the charge-back history  
3 based on the corresponding reason code.

1               16. The system of claim 13 wherein the risk model includes  
2 instructions for determining how each charge-back included in the charge-back  
3 history is associated with the purchasing card transaction, and instructions for  
4 weighting each charge-back based on the corresponding association with the  
5 purchasing card transaction.

1               17. The system of claim 13 wherein the risk model includes  
2 instructions for comparing the charge-back history to predetermined ranges of  
3 charge-backs in order to determine the risk score.

1               18. The system of claim 13 wherein the risk model comprises a  
2 linear risk model.

1               19. The system of claim 13 wherein the risk model comprises a  
2 regression risk model.

1               20. The system of claim 13 wherein the risk model comprises a  
2 decision tree risk model.

1               21. The system of claim 13 wherein the risk model comprises a  
2 neural network risk model.

1               22. A computer system for quantifying risk of fraud associated  
2 with a purchasing card transaction, the computer system comprising:  
3                   a database for storing a charge-back history associated with a  
4 consumer involved in the purchasing card transaction; and

5 a processor in communication with the database, the processor  
6 including a risk model for determining a risk score based on the charge-back  
7 history.